ATTACHMENT NOT INCLUDED

SITE INSPECTION
TASK WORK PLAN

TORQUE PETROLEUM PRODUCTS
HOUSTON, HARRIS COUNTY, TX
EPA CERCLA ID NO.: TXD490014701

Prepared for

U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, TX 75202

Contract No.: 68-W9-0015
Work Assignment No.: 23-6JZZ
Document Control No.: 4603-023-0366

Prepared by

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March 1997

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TASK WORK PLAN

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TORQUE PETROLEUM PRODUCTS
HOUSTON, HARRIS COUNTY, TEXAS
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SECTION 1
INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), Roy F. Weston, Inc. (WESTON®) has been tasked to perform a Site Inspection (SI) of the Torque Petroleum Products site (EPA CERCLA Identification Number TXD490014701) in Houston, Harris County, Texas (Figure 1-1). Based on available site information, WESTON believes that the site is eligible for action under CERCLA/SARA. The U.S. Environmental Protection Agency (EPA) Region 6 retained WESTON to complete this investigation under EPA Contract Number 68-W9-0015 and Work Assignment Number 23-6JZZ.

This document represents the Task Work Plan (TWP) for the SI. The purpose of this document is to summarize available background information for the site and, based on this information and the results of an off-site reconnaissance, propose off-site investigation activities for the SI.

1.1 PURPOSE OF THE INVESTIGATION

The SI is the second investigation in a series of screening assessments in which EPA evaluates hazardous waste sites under CERCLA/SARA. The purpose of this SI is to identify immediate or potential threats that hazardous substances attributable to the site may pose to human health and the environment by documenting the existence and migration of hazardous substances related to the site and by identifying the receptors, or targets, potentially exposed to the hazardous substances. EPA will use the information obtained during the SI to evaluate the site using the Hazard Ranking System (HRS) and to help decide if the site is a potential candidate for inclusion on the National Priorities List (NPL). Depending on the results of the SI, EPA may propose the site for listing on the NPL, decide that further investigation of the site is required, or determine that no further action should be taken at the site under CERCLA/SARA.

1.2 SCOPE OF WORK

The scope of work for the SI will focus on obtaining the most important background information and analytical data required to evaluate the site using the HRS. WESTON will complete the following major tasks as part of this SI:

- Obtain and review available background information concerning the site.
- Research data related to the groundwater, surface water, soil exposure, and air pathways.

- Conduct an off-site reconnaissance survey to document current site conditions, to locate potential hazardous waste sources, and to identify potential receptors or targets of a release.

- Prepare a site-specific TWP and a Health and Safety Plan (HASP) for off-site investigation activities.

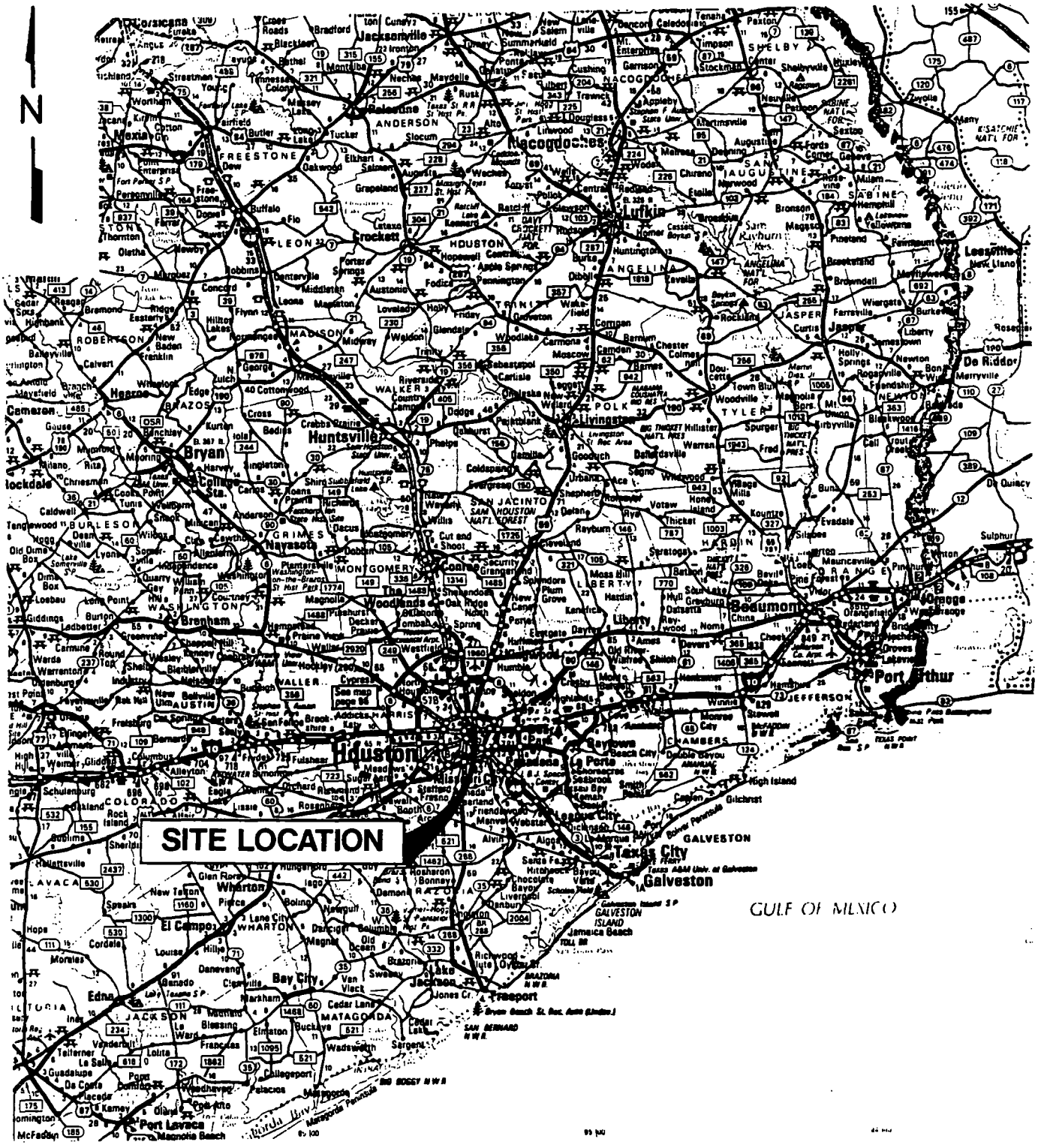
- Prepare a Site Inspection Report within the HRS framework, which presents the background information obtained for the site and documents the results of the site reconnaissance and analytical data review.

1.3 WORK PLAN ORGANIZATION

This SI TWP has been organized in a format that is intended to facilitate application of information in the report to the HRS. This TWP is organized as follows:

- Section 1—Introduction
- Section 2—Site Background Information
- Section 3—Exposure and Migration Pathway Characteristics
- Section 4—Sampling Visit Activities
- Section 5—Project Information
- Section 6—References

A copy of the limited Health and Safety Plan (HASP) is provided in Appendix A. All referenced figures and tables are found at the end of each section.



MAP PREPARED FROM
RAND McNALLY ROAD ATLAS
ARKANSAS
1994 EDITION

0 15 30
APPROXIMATE SCALE IN MILES

WESTON
MANAGERS ENGINEERS/CONSULTANTS

FIGURE 1-1
SITE LOCATION MAP
TORQUE PETROLEUM
HOUSTON, TEXAS
CERCLA ID. NO. : TXT490014701

EPA REGION 6
ARCS SITE INSPECTION

W.O. NO. : 04606-023-027-1800

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SECTION 2
SITE BACKGROUND INFORMATION

A summary of the location, description, operational history, hazardous waste characteristics, and concerns of the site is presented in the following subsections. The site background information presented in this TWP has been obtained from reports previously completed for the site, as well as from WESTON's recent off-site reconnaissance.

2.1 SITE LOCATION AND DESCRIPTION

The Torque Petroleum Products (Torque) Site is located at 2505 Collingsworth in Houston, Harris County, Texas. The apparently active site can be reached by traveling north from downtown Houston on U.S. Highway 59 (Hwy 59) North exiting at Collingsworth, then traveling approximately 0.25 miles west on Collingsworth. The site is located on the northwest corner of Collingsworth and Cherry Drive approximately 0.25 mile west of U.S. Hwy 59 North. The geographic coordinates of the site are approximately 29°47'36" north latitude and 95°20'32" west longitude (Reference 1). A Site Area Map derived from the U.S. Geological Survey (USGS) 7.5-minute Settegast, Texas, topographic quadrangle map is provided as Figure 2-1 (Reference 2).

WESTON conducted an off-site reconnaissance of the Torque site and the surrounding area on 30 December 1997. The Torque site consists of a rectangular area covering approximately 1.2 acres (Reference 3). Access to the property where the site is located is restricted by a 6-foot fence with barbed wire that is bent and in disrepair. A brick office building, two old warehouses, one new warehouse, two temporary sheet metal buildings, a water tower, and a parking lot are present on-site. The office building appears to be in poor condition. Two of the warehouses are brick and appear to be boarded up. The third warehouse appeared to be "new" and constructed of sheet metal. A 1982 Preliminary Assessment (PA) conducted by Ecology and Environment described 15 aboveground storage tanks (ASTs) that were located at the site. During WESTON's off-site reconnaissance, it appeared these tanks had been removed. The six on-site buildings appeared to be in the area where the former tanks were located (Reference 4). Four ASTs are located on the property, but are not located within the site boundaries defined by the PA. Also, these tanks were not addressed in the PA. These tanks are located adjacent to and west of the site. Approximately four compressed gas cylinders are located on pallets northwest of the brick office building. A Site Plan is provided as Figure 2-2.

The Torque site is located in an medium industrial area of Houston, Texas. The area surrounding the site is described as follows:

- The site is bordered to the north by an area of abandoned cars and the Metal & Iron Corporation. The Metal & Iron Corp. property appears to be a junkyard containing an apparently abandoned sheet metal building, several abandoned vehicles, and a rusted sheet metal fence.

- The site is bordered to the east by Cherry Drive. Between the eastern site fenceline and Cherry Drive is a drainage ditch, a sump, and a rusted monitoring well. The Phoenix Distribution Center is located east of Cherry Drive and currently maintains several ASTs. A restaurant is located south of the Phoenix Distribution Center on the corner of Cherry Drive and Collingsworth Street.

- The site is bordered to the west by several ASTs. The tanks appear to be located on the west side of the property, but are not within the Torque site boundaries. These tanks appear to be used as a storage facility. WESTON was unable to identify the owners of these tanks. There were several railroad tank cars parked adjacent to the tanks. An active railroad track that forks into two tracks lays west of the tanks. During the off-site reconnaissance, WESTON observed an oily sheen on water contained in a ditch located between the forked railroad tracks.

- The site is bordered to the south by Collingsworth Street and an open grass field. Texas Cotton, Inc., Non-Ferrous Threaded Products Co., and the Texas Department of Health Animal Care Facility are located south of the open field on the block south of the site. A&B Metal Manufacturing is located south and west of the site across Collingsworth Street.

2.2 SITE HISTORY

Prior to 1985, Torque operated as a waste oil storage and treatment facility. Although the initiation date for site activities is unknown, a Part A permit application for waste oil storage was submitted by Torque to the Texas Department of Water Resources (TDWR), a predecessor to the TNRCC, on 15 July 1983. The permit stated that waste petroleum was stored at the site, treated using filtration to remove solids and heated to remove water then shipped off-site (Reference 5). Torque leased 15 ASTs located on the site from the site owner, Crozier and Nelson Chemicals and Containers, Inc. Torque's operation included use of the ASTs and a portable office building. In October 1985, Torque ceased operations at this location and removed the office building.

In 1985 Global Fuel, Inc. (Global Fuel) leased some of the ASTs from Crozier and Nelson. Global Fuel was issued a permit by TWC, a predecessor to TNRCC, (Texas State Hazardous Waste Permit No. 50092) on 17 September 1985 authorizing use of nine of the ASTs as waste management units. Later, at an unknown date, the permit was amended to reduce the number of tanks to two in order to reduce the amount of financial assurance required. Only one tank at the site (Tank No. 43) was used when the Global Fuel operations were active. In December 1986, the facility stopped receiving hazardous waste because Global Fuel could not meet the financial requirements required by the TWC.

A final closure report for Tank No. 43 entitled "Global Fuel, Inc. Aboveground Storage/Treatment Tank No. 43; Clean Closure - 2505 Collingsworth, Houston (Harris County), Texas," was submitted to TNRCC in August 1994 (Reference 7). The initial submittal, dated 13 July 1994, was

not approved by TNRCC because it did not contain the proper engineering stamp (certification) for closure. On 11 October 1995, the closure plan was resubmitted with the required engineering certification, and on 12 January 1996, TNRCC approved the closure. The remediation/closure activities concerning Tank No. 43 successfully attained a Standard 1 level of cleanup in accordance with the Risk Reduction Rules; 30 TAC 335, Subchapters A and S (Reference 8). It is unknown what happened to the other ASTs located on-site.

On 29 March 1994 an inspection by TNRCC revealed that the site was leased from Crozier and Nelson by Texas International Warehouse Corporation (TIWC) . At the time of the inspection, the facility consisted of a warehouse, approximately 33,000 square feet, which was used to store raw materials such as resins, talc, clay, and lube oils. Tank No. 43 was renamed as Tank No. 41 and was used to store shock-absorber oil (Reference 9).

During 1994, Tank No. 43 (renamed Tank No. 41) was reportedly removed, and a warehouse was built on top of the area (Reference 10). The site is currently active and is used by Crozier and Nelson as a chemical storage and distribution center. Observations made during WESTON's off-site reconnaissance indicate that all of the ASTs formerly located on the site appear to have been removed.

2.3 SUMMARY OF PREVIOUS COMPLIANCE ACTIVITIES AND INVESTIGATIONS

WESTON reviewed available EPA and CERCLA files to collect information regarding previous investigations completed when Torque Petroleum leased the site. WESTON attempted to review TNRCC files for the period when Torque leased the site; however, TNRCC was unable to locate the Torque site files. TNRCC files were available for the investigations and compliance-related actions regarding Global Fuel, Inc., which leased some of the ASTs after Torque Petroleum. Based on the TNRCC Global Fuel, Inc. file information, the key dates of TNRCC's (formerly TDWR and TWC) investigation of Global Fuel, Inc. are as follows:

- 2 December 1986 an Agreed Order was issued with the following requirements for Global Fuel, Inc.:

    1. Cease to receive and process waste until liability insurance and closure cost financial assurance were provided.

    2. Test each shipment of incoming waste in accordance with the waste analysis plan.

    3. Test all salable waste fuel for the parameters established in the permit.

    4. Maintain the inspection records to include time of inspection and remedial actions as required by the permit.

5. Make a hazardous waste determination for its shaker solids and list shaker solids on its Notice of Registration.

- 28 September 1989 an inspection of the facility was conducted and a Notice of Violation was issued for the following violations:

  1. Permit Provision (PP) IV C.5: Failure to close tank in accordance with the PP.

  2. 31 TAC 335.62: Failure to provide hazardous waste determination of drummed liquid wastes stored on-site.

  3. 31 TAC 335.6: Failure to notify of inactive status.

  4. PP III.F: Failure to maintain records for a minimum of three years.

- 20 May 1991 a compliance inspection was conducted. The inspection determined that Global Fuel was inactive and no longer generating or storing any hazardous waste. The final closure of Tank No. 43 was not approved because a certified statement signed by the owner or operator and a Registered Professional Engineer was not provided in the closure report (Reference 6).

- 2 April 1992 a Notice of Violation was written, citing 40 CFR 264.115 (certifications of closure required) (Reference 11).

A Preliminary Assessment (PA) was conducted for the EPA by Ecology and Environment, Inc. on 1 September 1982. The PA indicated that the site contained 15 ASTs, which were used to store waste oil. The PA reported concern with the used oil stored in the tanks and waiting to be filtered. At one time, Torque Petroleum purchased what was thought to be waste oil, but was methyl ethyl keytone (MEK). The only potential waste hazard identified in the PA were spills from the trucks transferring waste oil to the ASTs. The trucks appeared to transfer waste oil while parked on grates supported by a concrete sump. Spills most likely drained into the sump where they were washed into the storm sewer system (Reference 3). The PA noted concern about the cleanup process because wash water drained into the city storm sewer system; however, no action was recommended. The PA also indicated that further compliance inspection activities under the Resource Conservation and Recovery Act (RCRA) were being conducted by the state. Under the RCRA/Environmental Priorities Initiative, EPA requested a CERCLA Screening Site Inspection (SSI) to be conducted by the Superfund Division of EPA.

2.4 SOURCE WASTE CHARACTERISTICS AND SITE CONCERNS

Information concerning the known or potential waste sources at the Torque site and the constituents thought to be associated with each source are described in the following subsections along with potential concerns associated with contaminant migration and exposure.

2.4.1 Waste Source Characteristics

Based on background information and the results of WESTON's off-site reconnaissance survey, no remaining hazardous waste source was identified at the site. All of the tanks used for waste oil storage appeared to have been removed. Tank No. 43 was closed under the Risk Reduction Rules; 30 TAC 335, Subchapters A and S and obtained a Standard 1 level of cleanup. Under Standard 1, the remediation and closure activities concerning Tank No. 43 was determined to be at or below background conditions (Reference 8).

2.4.2 Site Concerns

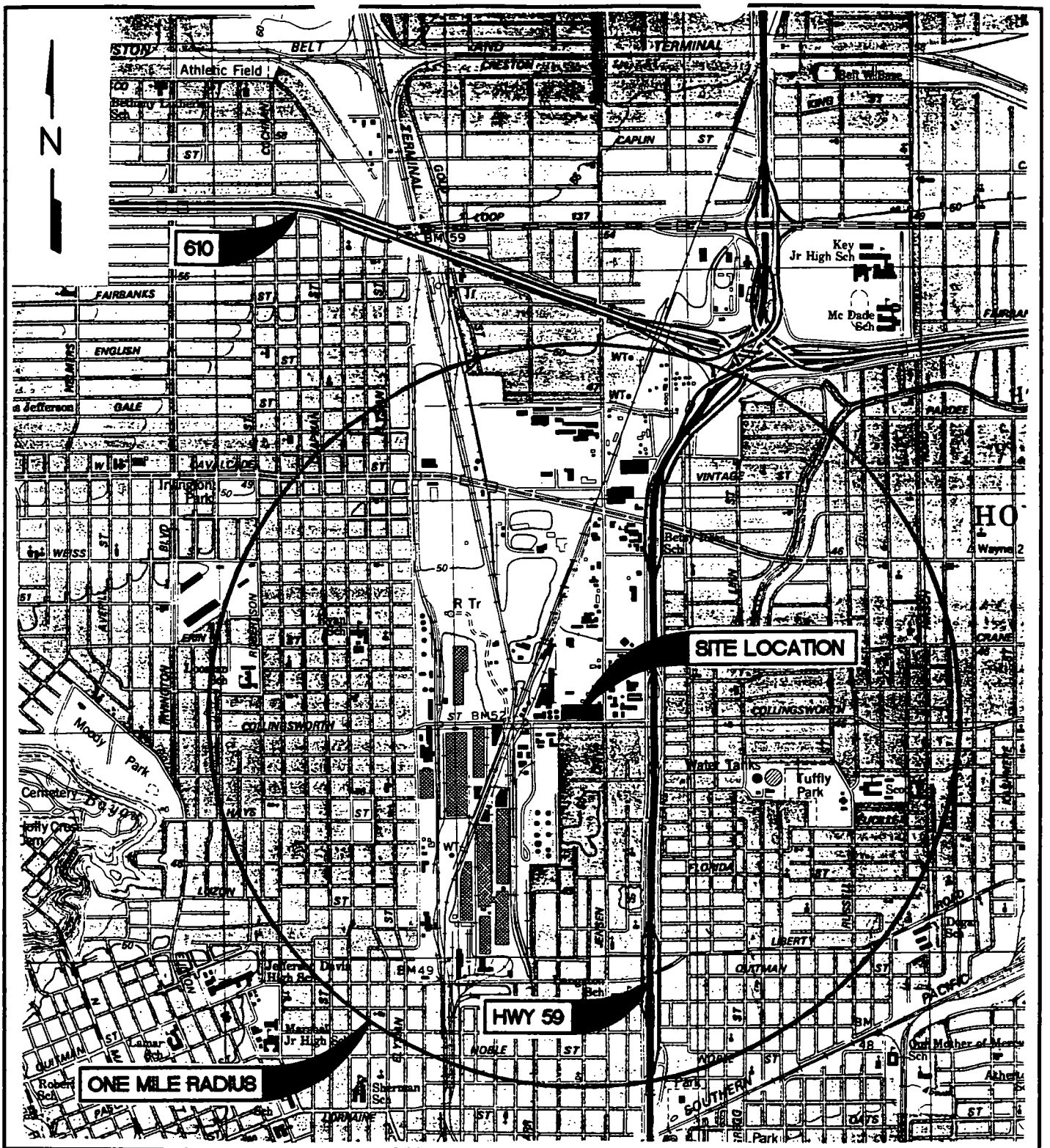
Possible concerns associated with potential waste sources at the site are the migration of or exposure to hazardous substances attributable to the site through the groundwater, surface water, soil exposure, and air pathways. Potential concerns include the following:

- A release to groundwater is not of concern. As indicated in Subsection 2.2, closure and removal of the waste oil storage tanks was completed on 12 January 1996. There are seven domestic wells and three public supply wells within 4 miles of the site (Figure 2-3). However, according to the City of Houston Public Works Water Production Office, most of the residences in the site vicinity use surface water for drinking water, and the public supply wells are used for backup purposes only. Also, according to the same source as stated before, the private wells shown on Figure 2-3 are most likely not used (Reference 12).

- A release to surface water is not of concern. ASTs associated with historical activities have been removed from the site, and no remaining hazardous waste source has been identified on the site.

- Soil exposure is not of concern because no release to soils has been reported and the site is entirely covered by buildings, concrete, and asphalt.

- A release to air is of no concern. The tanks at the site associated with historical activities have been removed. Additionally, the area where the tanks were located is now covered by buildings and a parking lot.



BASE MAP FROM:
U.S. DEPT. OF THE INTERIOR
GEOLOGICAL SURVEY
SETTEGAST QUADRANGLE
TEXAS
7.5 MINUTE SERIES (TOPOGRAPHIC)
1982 SERIES
SCALE 1:24,000

0 1000 2000
SCALE IN FEET

WESTON
MANAGERS DESIGNERS/CONSULTANTS

FIGURE 2-1
SITE AREA MAP
TORQUE PETROLEUM PRODUCTS
HOUSTON, TEXAS
CERCLA ID. NO. : TXD490014701
EPA REGION VI
ARCS SITE INSPECTION
W.O. NO. : 04603-023-027-1800

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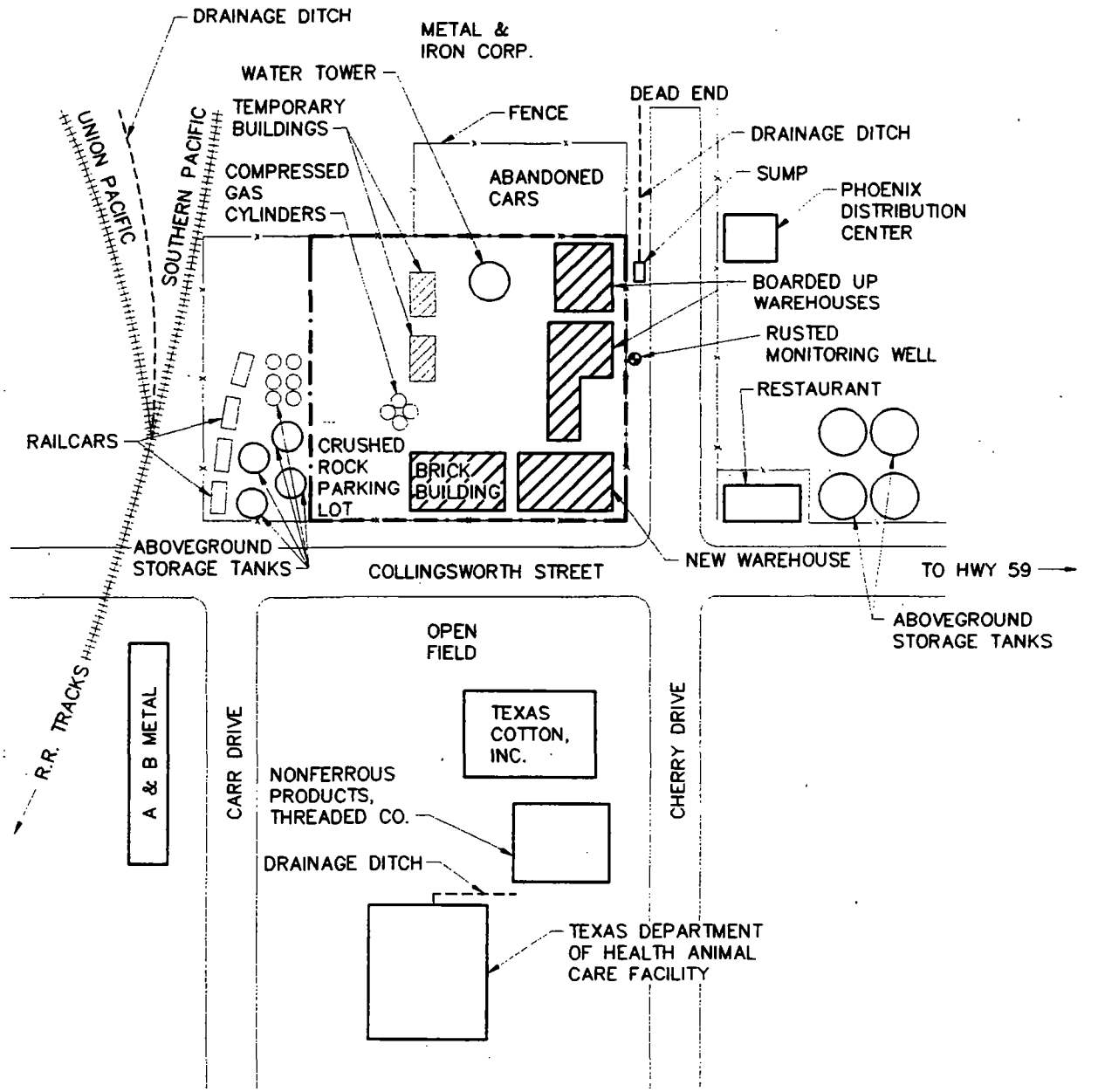

LEGEND:

- DRAINAGE DITCH
- FENCE (ROZIER AND NELSON PROPERTY LINE)
- SITE BOUNDARY
- ON-SITE BUILDING

0 15 30

SCALE IN MILES

WESTON MANAGERS DESIGNERS/CONSULTANTS

FIGURE 2-2

SITE PLAN

TORQUE PETROLEUM PRODUCTS
HOUSTON, TEXAS

CERCLA ID. NO. : TXD490014701

EPA REGION VI
ARCS SITE INSPECTION

W.O. NO. : 04603-023-027-1800

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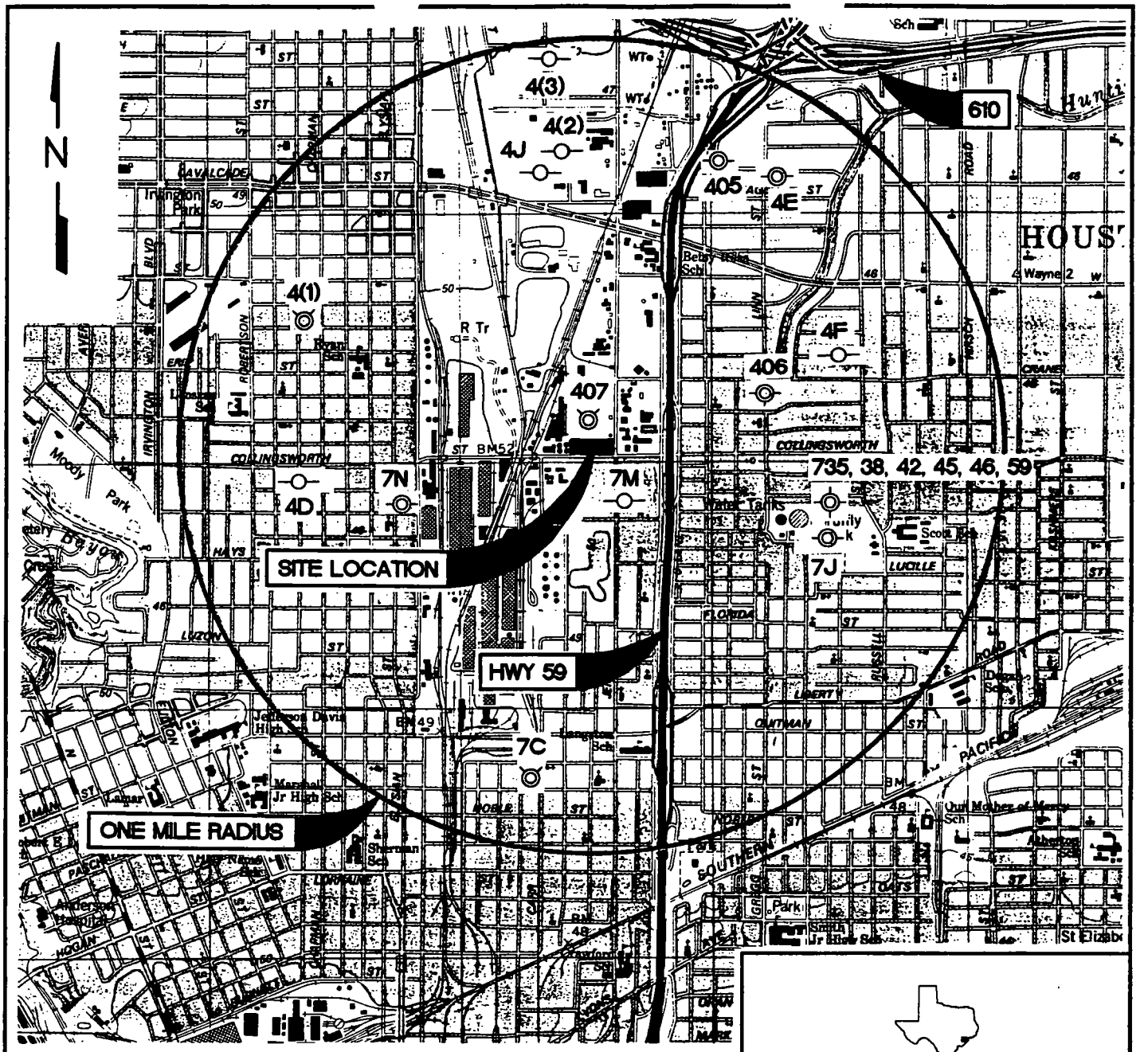

WELL SYMBOL LEGEND		
IN USE	ABANDONED	TYPE OF WELL
⊸	○	DOMESTIC
⊙	⊙	PUBLIC SUPPLY
⊗	⊗	INDUSTRIAL OR COMMERCIAL
⊙	⊙	IRRIGATION
◉	⊕	UNKNOWN/UNUSED

BASE MAP FROM:
U.S. DEPT. OF THE INTERIOR
GEOLOGICAL SURVEY
SETTEGAST QUADRANGLE
TEXAS
7.5 MINUTE SERIES (TOPOGRAPHIC)
1982 SERIES
SCALE 1: 24,000

WESTON
MANAGERS DESIGNERS/CONSULTANTS

FIGURE 2-3

WATER WELL LOCATION MAP
TORQUE PETROLEUM PRODUCTS
HOUSTON, TEXAS
CERCLA ID. NO. : TXD490014701
EPA REGION VI
ARCS SITE INSPECTION
W.O. NO. : 04603-023-027-1800

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SECTION 3
EXPOSURE AND MIGRATION PATHWAY CHARACTERISTICS

Information regarding the groundwater, surface water, soil exposure, and air pathways are presented in the following sections. Sampling and nonsampling data collected to date are addressed. Known data gaps are identified at the end of the section.

3.1 GROUNDWATER PATHWAY

Information concerning the groundwater pathway, generally one of the primary routes of potential hazardous substance migration and exposure, is summarized in the following subsections.

3.1.1 Hydrogeologic Description

The stratigraphic units of interest underlying the Torque site from youngest to oldest are the Quaternary-age Beaumont Clay, Lissie Formation, Willis Sand, and the Tertiary-age Goliad Sand. Two major aquifers occur in the units underlying the site: the Chicot and the Evangeline Aquifers. The Chicot aquifer occurs in the Quaternary-age formations and the Evangeline aquifer occurs in the underlying Goliad Sand. There are no established confining layers between the Evangeline and Chicot aquifers, rather they are distinguished by differences in composition and hydraulic conductivity (Reference 13).

3.1.2 Likelihood to Release

Based on available information, a release to groundwater has not been documented at the site. Based on historical information, the ASTs were designed to handle overfill and drainage control to prevent spillage and thus runoff from the site. The 1985 TWC approved permit for Industrial Solid Waste Management at the site states that overfilling of the tanks would be prevented by the use of overfilling controls. The same permit describes a runoff control system for the AST would be constructed to collect spillage and rainfall runoff from the area immediately surrounding the ASTs. This runoff control was a base and sides which were free of cracks or gaps and were sufficiently impervious to contain leaks, spills, and accumulated rainfall (Reference 14). It appeared in photographs provided in the 1982 PA that there is a concrete base encompassing the site (Reference 3). The site is currently covered by several buildings and a parking lot. No historical discharges to groundwater associated with the site have been documented.

3.1.3 Groundwater Pathway Targets

According to the 1985 permit for Industrial Solid Waste Storage/Processing/Disposal Facility-Part A, there are no on-site wells (Reference 5). However, five public and six domestic drinking water supply wells have been identified within a 4-mile radius of the site (Reference 15). According to Ms. Beverly Halet of the City of Houston Public Works Water Production Office, most of the residences within the 4-mile radius receive water from surface water, while the public supply wells in the vicinity are used as

a backup water supply. Ms. Halet indicated that most of the private drinking wells are probably not used (Reference 12).

3.2 SURFACE WATER PATHWAY

Available information concerning the surface water pathway is summarized in the following subsections.

3.2.1 Hydrogeologic Description

The Torque site is located within the San Jacinto Basin of Texas.

Surface water at the site flows overland to a roadside drainage ditch into the city storm sewer system, enters a perennial flowing creek at the PPE, and flows downstream.

3.2.2 Likelihood to Release

According to the 1985 permit for Industrial Solid Waste Management, the facility was designed to provide a drainage control system to collect spills, leaks, or rainfall. Drainage control requirements were met by providing a base and sides that were free of cracks or gaps and were sufficiently impervious to contain leaks, spills, and accumulated rainfall until the collected material was detected and removed, and providing curbs or sides designed to withstand the hydrostatic head from a full tank (Reference 14). The ASTs have been removed, and the site is almost entirely paved and now consists of several buildings and a parking lot.

3.2.3 Surface Water Pathway Targets

Surface water pathway targets include drinking water intakes, fisheries, sensitive environments, and other resources that rely on surface water. There are no targets located within the surface water pathway for the site.

3.3 SOIL EXPOSURE

Information concerning the soil exposure threat is provided in the following subsections.

3.3.1 Surficial Conditions

The Torque site is located on soil classified by the U.S. Department of Agriculture - Soil Conservation Service as Urban land. Urban land is defined as extensively built up areas where 75% to 100% of the mapped area is either covered by structures or disturbed by cutting, filling, or grading. There may be remnants of undisturbed soil and areas where the natural soil is covered by the gravel fill material used for the parking lot. The soils within the Urban land classification have been altered and obscured, precluding standard classification (Reference 16).

Important surficial characteristics noted during the site reconnaissance included the following:

- No areas of potential soil contamination were observed during the off-site reconnaissance.
- The site is covered by buildings, concrete, and a parking lot (Reference 4).

3.3.2 Likelihood of Exposure

Based on observations made during the off-site reconnaissance and available background information, potential hazardous waste sources have been removed from the Torque site. At the time of the off–site reconnaissance, several buildings and a parking lot were in the area, which historically contained the aboveground storage tanks. The site is active, but access to the site is restricted by a perimeter fence (Reference 4).

3.3.3 Soil Exposure Targets

The Torque site currently consists of an active chemical storage and distribution business. During the off-site reconnaissance, at least five employees were observed walking around the site, and the buildings appeared to be occupied by several employees (Reference 4). There are no residences or schools located adjacent to the site.

No terrestrial sensitive environments have been identified at the site, and no resources have been identified within the soil exposure pathway.

3.4 AIR PATHWAY

Information concerning the air pathway is presented in the following subsections.

3.4.1 Atmospheric Conditions

Information concerning the weather conditions and patterns in the site vicinity have not been identified at this point.

3.4.2 Likelihood to Release

Based on available information, a release to air has not been documented. A significant release to air is not probable because the potential hazardous waste sources associated with the Torque site have been removed or covered by several buildings and a parking lot.

3.4.3 Air Pathway Targets

Potential targets of the air pathway include on-site workers, the nearby population working and living within 4 miles of the site, as well as any sensitive environments that may be in the area. There were several workers observed on-site during the off-site reconnaissance (Reference 4). Also during the reconnaissance, residential neighborhoods were observed in the vicinity of the site and are within 4 miles of the site.

3.5 DATA GAPS

Based on review of the available background information and observations made during the off-site reconnaissance, the data gaps identified for the site include identification of sensitive environments, identification of fisheries, and an evaluation of atmospheric and climatic conditions at the site.

SECTION 4
SAMPLING VISIT ACTIVITIES

4.1 BACKGROUND INFORMATION

As previously discussed in Section 2, review of available site information and observations made during the off-site reconnaissance indicate that the waste oil ASTs at the site were removed. Subsequently, several buildings and a parking lot were constructed in the area where the former tanks were located. A closure report was written for one of the tanks and was approved by TNRCC. The site is located in an industrial area surrounded by other ASTs, an active railroad track, a dump yard, and a steel mill.

4.2 WESTON SAMPLING ACTIVITIES

No field sampling activities will be performed by WESTON during this SI. Under authorization and direction from EPA, WESTON will use all available historical data to complete the SI report.

4.3 REPORT PREPARATION (Document Control No. 4603-23-0008)

After reviewing and summarizing the available historical data, WESTON will prepare the final report for the SI. The report will contain information as specified in WESTON's Generic Site Inspection Work Plan and by regional guidance. The report format will include the following:

- An introduction section describing the background and purpose of the investigation.
- A site characteristics section describing the site location, operating history, source waste characteristics, and site concerns.
- Individual sections for the groundwater, surface water, soil exposure, and air pathways describing the environmental conditions at the site, the likelihood of a release, targets, and relevant analytical data.
- A summary and conclusions section discussing the major site concerns.

SECTION 5
PROJECT INFORMATION

This section outlines basic project management information for the SI. Details concerning key personnel and the project schedule are provided. Reference should be made to WESTON's Generic Site Inspection Work Plan for more detailed information concerning WESTON's project management plan.

5.1 ANTICIPATED KEY PROJECT PERSONNEL

The anticipated key project personnel for this SI assignment are shown on Figure 5-1.

5.2 PROJECT SCHEDULE

The overall project schedule is summarized in Table 5-1.

Figure 5-1
Anticipated Key Project Personnel

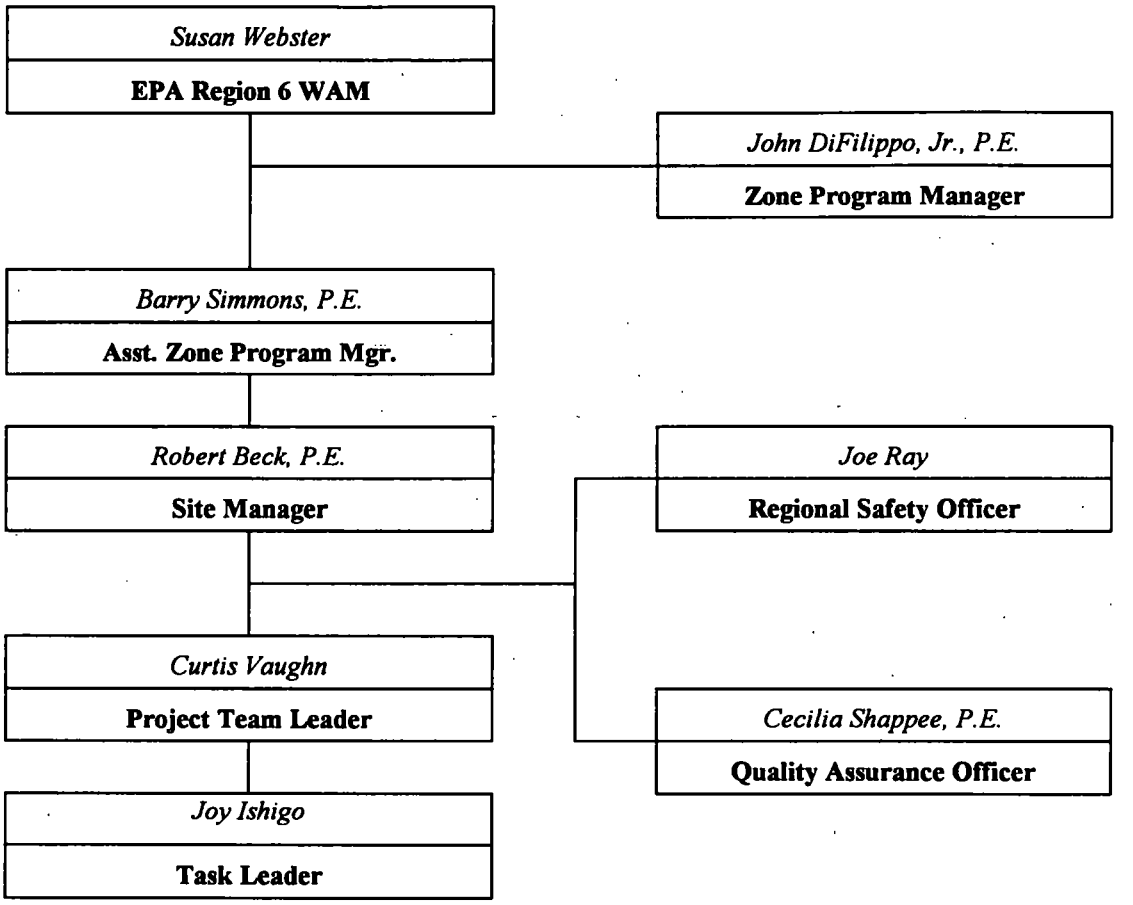

TABLE 5-1
PROJECT SCHEDULE
(1996 - 1997)

TARGET MILESTONES	NOV	DEC	JAN	FEB	MAR	APR
OFF-SITE RECONNAISSANCE						
WORK PLAN SUBMITTAL TO EPA						
WORK PLAN REVIEW/APPROVAL BY EPA						
EQUIPMENT MOBILIZATION						
REPORT WRITING						
REPORT QUALITY ASSURANCE						
REPORT SUBMISSION						

SECTION 6
REFERENCES

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APPENDIX A

HEALTH AND SAFETY PLAN

E HEALTH AND SAFETY PLAN (HASP)

Prepared by: by Ishigo

W.O. Number: 04603-023-027-1800-04 **Date:**

Project Identification: Torque Petroleum Products
Division: SCR
Department/Office: Houston, TX
Site Name: Torque Petroleum Products
Client: EPA/AECS
Work Location Address: 2505 Collingsworth Houston, TX 77026

Site History: (describe briefly) From 1980 - 1988 the facility leased tanks to store waste oils from filling stations, iron steel mills, etc. In 1993 the tanks were removed. Presently, construction of a building on site.

Scope of Work: (describe briefly)
Site ~~visit~~ reconnaissance visit will be conducted. Field notes will be taken along w/ photographs

☐ Site visit only; site HASP not necessary. List personnel here and sign off below:

Regulatory Status:

Site regulatory status:

CERCLA/SARA	RCRA	Other Federal Agency
☒ US EPA	☐ US EPA	☐ DOE
☐ State	☐ State	☐ USACE
☐ NPL Site	NRC	☐ Air Force
OSHA	☐ 10 CFR 20	☐ _____
☒ Hazard Communication (Req'd See Attachment "D")		
☒ 1910	☐ 1926	☐ State

☒ Safety Officer Manual (Required to be On Site)

Based on the Hazard Assessment and Regulatory Status, determine the Standard HASP(s) applicable to this project. Indicate below which Standard HASP will be used and append the appropriate pages of this form along with the Standard Plan.

☐ Stack Test	☐ _____
☐ Air Emissions	☐ _____
☐ Asbestos	☐ _____
☐ Industrial Hygiene	☐ _____
☒ Possible Hazardous Material	☐ _____

Review and Approval Documentation:

Reviewed by:
DSO/RSO/CHS: Joe Ray (Name Print) _____ (Signature) Date: 12/26/96

Other: _____ (Name Print) _____ (Signature) Date: _____

Approved by:
Project Director/ Project Manager: Dan MacLemore (Name Print) _____ (Signature) Date: 12/27/96

Hazard Assessment and Equipment Selection

In accordance with WESTON's Personal Protective Equipment Program and 29 CFR 1910.132 at the site prior to personnel beginning work the SHCS and/or the Site Manager have evaluated conditions and verified that the personal protective equipment selection outlined within this HASP is appropriate for the hazards known or expected to exist. (Refer to Safety Officer Manual Section 2 Personal Protection Program for Guidance)

☒ SHSC ☐ Site Manager Curtis Vaughn (Name Print) _____ Dan N MacLemore FOR CBV. (Signature) Date: 12/27/96

Project start date: 12/20/96
End date: 6/20/97

This site HASP **must be reissued/reapproved** for any activities conducted after:
Date: 6/20/97

Amendment date(s): By:
1.
2.
3.
4.
5.

WESTON REPRESENTATIVES

Organization/Branch	Name/Title	Address	Telephone
Weston / SCR	Curtis Vaughn	5599 San Felipe Ste. 700 Hou., TX 77056	(713)621-1620
Weston / SCR	Joy Ishigo	5599 San Felipe Ste. 700 Hou., TX 77056	(713)621-1620

Roles and Responsibilities:

WESTON SUBCONTRACTORS

Organization/Branch	Name/Title	Address	Telephone

Roles and Responsibilities:

SITE SPECIFIC HEALTH AND SAFETY PERSONNEL

The Site Health and Safety Coordinator (SHSC) for activities to be conducted at this site is: Curtis Vaughn

The SHSC has total responsibility for ensuring that the provisions of this Site HASP are adequate and implemented in the field.

Changing field conditions may require decisions to be made concerning adequate protection programs. Therefore, the personnel assigned as SHSCs are experienced and meet the additional training requirements specified by OSHA in 29 CFR 1910.120

Qualifications:

Designated alternates include: Dennis Hayes

HEALTH AND SAFETY EVALUATION

Hazard Assessment

Background Review: ☐ Complete ☒ Partial If partial why? Reconnaissance not been conducted

Activities Covered Under This Plan:

No.	Task/Subtask	Description	Schedule
1.	Site Reconnaissance	Site Walk through w/ note taking: photographs	Dec. 1996

Types of Hazards:

☐ Numbers refer to one of the following hazard evaluation forms. Complete hazard evaluation forms for each appropriate hazard class.

Physiochemical [1]

- ☐ Flammable
- ☐ Explosive
- ☐ Corrosive
- ☐ Reactive
- ☐ O_2 Rich
- ☐ O_2 Deficient

Chemically Toxic [1]

- ☐ Inhalation
- ☐ Ingestion
- ☐ Contact
- ☐ Absorbtion
- ☐ Carcinogen
- ☐ Mutagen
- ☐ Teratogen

☐ OSHA 1910.1000 Substance (Air Contaminants)

☐ OSHA Specific Hazard Substance Standard (Refer to HASP Form 04HASP.894 for Listing.)

Radiation [3]

Ionizing:

- ☐ Internal exposure
- ☐ External exposure

Non-ionizing:

- ☐ UV
- ☐ IR
- ☐ RF
- ☐ MicroW
- ☐ Laser

Biological [2]

- ☐ Etiological Agent
- ☒ Other (Plant, insect, animal)

☒ Physical Hazards [4]

- ☒ Construction Activities

Source/Location of Contaminants and Hazardous Substances

Directly Related to Tasks

- ☐ Air
- ☐ Other Surface
- ☐ Groundwater
- ☐ Soil
- ☐ Surface Water
- ☐ Sanitary Wastewater
- ☐ Process Wastewater
- ☐ Other _____

Indirectly Related to Tasks - Nearby Process(es) That Could Affect Team Members:

- ☐ Client Facility
- ☐ Nearby Non-client Facility

Describe:

☐ Client Briefing Arranged

HEALTH AND SAFETY EVALUATION - 1 CHEMICAL HAZARDS

☐ N/A

Chemical Contaminants of Concern

Provide the data requested for chemical contaminants on HASP Form 33HASP.894 or attach data sheets from an acceptable sources such as NIOSH pocket guide, condensed chemical dictionary, ACGIH TLV booklet, etc. List chemical and concentration below and locate data sheets in Appendix A of this HASP.

☐ N/A

Identify hazardous materials used or on-site and attach Material Safety Data Sheets (MSDS) for all reagent type chemicals, solutions, or other identified materials that in normal use in performing tasks related to this project could produce hazardous substances. Ensure that all subcontractors and other parties working nearby are informed of the presence of these chemicals and the location of MSDS's. Obtain from subcontractors and other parties lists of the hazardous materials they use or have on-site and identify location of MSDS's here. List chemicals and quantities below and locate MSDS in Appendix B of this HASP.

Chemical Name	Concentration (if known)	Chemical Name	Quantity

OSHA SITE SPECIFIC HAZARDOUS SUBSTANCES

The following substances may require specific medical, training, or monitoring based upon concentration or evaluation of risk. See the appropriate citation listed under 29 CFR 1910 or 1926 for additional information.

☐ 1910.1001 Asbestos	☐ 1910.1002 Coal tar pitch volatiles	☐ 1910.1003 4-Nitrobiphenyl	☐ 1910.1004 alpha-Naphthylamine
☐ 1910.1005 [Reserved]	☐ 1910.1006 Methyl chloromethyl ether	☐ 1910.1007 3,3'-Dichlorobenzidine (and its salts).	☐ 1910.1008 bis-Chloromethyl ether
☐ 1910.1009 beta-Naphthylamine	☐ 1910.1010 Benzidine	☐ 1910.1011 4-Aminodiphenyl	☐ 1910.1012 Ethyleneimine
☐ 1910.1013 beta-Propiolactone	☐ 1910.1014 2-Acetylaminofluorene	☐ 1910.1015 4-Dimethylaminoazobenzene	☐ 1910.1016 N-Nitrosodimethylamine
☐ 1910.1017 Vinyl chloride	☐ 1910.1018 Inorganic arsenic	☐ 1910.1025 Lead	☐ 1910.1027 Cadmium
☐ 1910.1028 Benzene	☐ 1910.1029 Coke oven emissions	☐ 1910.1043 Cotton dust	☐ 1910.1044 1,2-dibromo-3-chloropropane
☐ 1910.1045 Acrylonitrile	☐ 1910.1047 Ethylene oxide	☐ 1910.1048 Formaldehyde	☐ 1910.1050 Methylenedianiline

HEALTH AND SAFETY EVALUATION - 2 BIOLOGICAL HAZARDS OF CONCERN

☐ **Poisonous Plants** (FLD 43)

Location/Task No(s).:

Source: ☐ Known ☐ Suspect

Route of Exposure: ☐ Inhalation ☐ Ingestion ☐ Contact ☐ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No

Immunization required: ☐ Yes ☐ No

☒ **Insects** (FLD 43)

Location/Task No(s).:

Source: ☐ Known ☒ Suspect

Route of Exposure: ☐ Inhalation ☐ Ingestion ☐ Contact ☒ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☒ No

Immunization required: ☐ Yes ☒ No

☐ **Snakes, Reptiles** (FLD 43)

Location/Task No(s).:

Source: ☐ Known ☐ Suspect

Route of Exposure: ☐ Inhalation ☐ Ingestion ☐ Contact ☐ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No

Immunization required: ☐ Yes ☐ No

☐ **Animals** (FLD 43)

Location/Task No(s).:

Source: ☐ Known ☐ Suspect

Route of Exposure: ☐ Inhalation ☐ Ingestion ☐ Contact ☐ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No

Immunization required: ☐ Yes ☐ No

FLD 43 — WESTON Biohazard Field Operating Procedures: Att. OP ☐

☐ **Sewage**

Location/Task No(s).:

Source: ☐ Known ☐ Suspect

Route of Exposure: ☐ Inhalation ☐ Ingestion ☐ Contact ☐ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No

Immunization required: ☐ Yes ☐ No

Tetanus Vaccination within Past 7 yrs: ☐ Yes ☐ No
(see Note #1 below)

☐ **Etiologic Agents (List)**

Location/Task No(s).:

Source: ☐ Known ☐ Suspect

Route of Exposure: ☐ Inhalation ☐ Ingestion ☐ Contact ☐ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No

Immunization required: ☐ Yes ☐ No

FLD 44 — WESTON Bloodborne Pathogens Exposure Control Plan - First Aid Procedures: Att. OP ☐

FLD 45 — WESTON Bloodborne Pathogens Exposure Control Plan – Working with Infectious Waste: Att. OP ☐

Note #1: A tetanus injection is recommended every 10 years for employees with "normal exposure risks." However, if employees have frequent potential for exposure at "higher risk," as working with raw sewage, then a frequency of 7 years is recommended.

HEALTH AND SAFETY EVALUATION – [3] RADIATION HAZARDS OF CONCERN

NONIONIZING RADIATION

Task #	Type of Nonionizing Radiation	Source Onsite	TLV/PEL	Wavelength Range	Control Measures	Monitoring Instrument		
	Ultraviolet							
	Infrared							
	Radio Frequency							
	Microwave							
	Laser							

IONIZING RADIATION

				DAC (μCi/mL)				
Task #	Radionuclide	Major Radiations	Radioactive Half-Life (Years)	D	W	Y	Surface Contamination Limit	Monitoring Instrument

HEALTH AND SAFETY EVALUATION - 4 PHYSICAL HAZARDS OF CONCERN			
Phy.Haz.Cond.	**Physical Hazard**	**Att.OP**	**Weston OP Titles**
Loud noise	Hearing loss/disruption of communication	X	FLD01 - Noise Protection
Inclement weather	Rain/humidity/cold/ice/snow/lightning	X	FLD02 - Inclement Weather
Steam heat stress	Burns/displaced oxygen/wet working surfaces		FLD03 - Hot Process - Steam
Heat/Stress	Burns/hot surfaces/low pressure steam		FLD04 - Hot Process - LT3
Ambient heat stress	Heat rash/cramps/exhaustion/heat stroke		FLD05 - Heat Stress Prevention/Monitoring
Cold Stress	Hypothermia/frostbite		FLD06 - Cold Stress
Cold/wet	Trench/paddy/immersion foot/edema		FLD07 - Wet Feet
Confined spaces	Falls/burns/drowning/engulfment/electrocution		FLD08 - Confined Space Entry
Explosive vapors	Thermal burns/impaction/dismemberment		FLD09 - Hot Work
Improper lifting	Back strain/abdomen/arm/leg muscle/joint injury	X	FLD10 - Manual Lifting/Handling Heavy Objec
Uneven Surfaces	Vehicle accidents/slips/trips/falls	X	FLD11 - Rough Terrain
Poor housekeeping	Slips/trips/falls/punctures/cuts/fires	X	FLD12 - Housekeeping
Structural integrity	Crushing/overhead hazards/compromised floors		FLD13 - Structural Integrity
Hostile persons	Bodily injury		FLD14 - Site Security
Remote Area	Slips/trips/falls/back strain/communication		FLD15 - Remote Area
Improper Cyl.Handling	Mechanical injury/fire/explosion/suffocation		FLD16 - Pressure Systems - Compressed Gas
Water Hazards	Poor visibility/entanglement/drowning/cold stress		FLD17 - Diving
Water Hazards	Drowning/heat/cold stress/hypothermia/falls		FLD18 - Operation and Use of Boats
Water Hazards	Drowning/frostbite/hypothermia/falls/electrocution		FLD19 - Working Over Water
Vehicle Hazards	Struck by vehicle/collision	X	FLD20 - Traffic
Explosions	Explosion/fire/thermal burns		FLD21 - Explosives
Moving mechanical parts	Crushing/pinch points/overhead hazards		FLD22 - Heavy Equipment Operation
Moving mech.parts	Overhead hazard/electrocution	X	FLD23 - Cranes/Lifting Equipment Operation
Working at elevation	Overhead hazards/falls/electrocution		FLD24 - Aerial Lifts/Manlifts
Working at elevation	Overhead hazard/falls/electrocution		FLD25 - Working at Elevation
Working at elevation	Overhead hazard/falls/electrocution/slips		FLD26 - Ladders
Working at elevation	Slips/trips/falls/overhead hazards		FLD27 - Scaffolding
Trench Cave-in	Crushing/falling/overhead hazards/suffocation		FLD28 - Excavating/Trenching
Improper material handling	Back injury/crushing from load shifts		FLD29 - Materials Handling
Physiochemical	Explosions/fires from oxidizing, flam./corr.material		FLD30 - Hazardous Materials Use/Storage
Physiochemical	Fire and explosion		FLD31 - Fire Prevention/Response Plan Requi
Physiochemical	Fire		FLD32 - Fire Extinguishers Required
Structural integrity	Overhead/electrocution/slips/trips/falls/fire		FLD33 - Demolition
Electrical	Electrocution/shock/thermal burns		FLD34 - Utilities
Electrical	Electrocution/shock/thermal burns		FLD35 - Electrical Safety
Burns/Fires	Heat Stress/Fires/Burns		FLD36 - Welding/Cutting/Burning
Impact/thermal	*Thermal burn/high pressure impaction/heat stress*		FLD37 - *High Pressure Washers*
Impaction/electrical	Smashing body parts/pinching/cuts/electrocution		FLD38 - Hand and Power Tools
Poor visibility	Slips/trips/falls		FLD39 - Illumination
Fire/Explosion	Burns/impaction		FLD40 - Storage Tank
Communications	Disruption of Communications		FLD41 - Std. Hand/Emergency Signals
Energy/Release	Unexpected release of energy		FLD42 - Lockout/Tagout
Drilling hazards	Electrocution/overhead hazards/pinch points		2.5 - Drilling Safety Guide

TASK-BY-TASK RISK ASSESSMENT
(Complete One Sheet for Each Task)

TASK DESCRIPTION

1. Site Reconnaissance

EQUIPMENT REQUIRED/USED
(Be specific, e.g., hand tools, heavy equipment, instruments, PPE)

Steel-toed Boots
Coveralls
Log Book

POTENTIAL HAZARDS/RISKS

CHEMICAL

☒ Hazard Present Risk Level: ☐ H ☐ M ☒ L

What Justifies Risk Level? Low risk because no intrusive activities will be performed ; waste source not suspected at site.

PHYSICAL

☒ Hazard Present Risk Level: ☐ H ☐ M ☒ L

What Justifies Risk Level? Low risk because no intrusive activities will be performed

BIOLOGICAL

☒ Hazard Present Risk Level: ☐ H ☐ M ☒ L

What Justifies Risk Level? Site may have mosquitoes

RADIOLOGICAL

☐ Hazard Present Risk Level: ☐ H ☐ M ☒ L

What Justifies Risk Level? No known sources

LEVELS OF PROTECTION/JUSTIFICATION

Level D: Initial level of protection will be level D because no known air pathways are suspected in breathing zone.

SAFETY PROCEDURES REQUIRED AND/OR FIELD OPS UTILIZED

Follow standard operating procedure SOS specified in the Ukiah SHSC manual.

PERSONNEL PROTECTION PLAN

Engineering Controls
Describe Engineering Controls used as part of Personnel Protection Plan:

Task(s)

Administrative Controls
Describe Administrative controls used as part of Personnel Protection Plan:

Task(s) Task 1

Follow HASP + SOPs. An initial safety meeting will be held before work starts. This will be done to keep all team members current on their knowledge of safety concerns at the site.

Personnel Protective Equipment
Action Levels for Changing Levels of Protection. Define Action Levels for up or down grade for each task:

Task(s) Task 1
Task 1 is a site reconnaissance. No intrusive actions will be made. Level D protection will be required. An OVA will be brought + used only if site conditions warrant its use (i.e. waste sources found). But, it is suspected that no waste sources are present at site.

Description of Levels of Protection

Level D	Level D Modified
Task(s):	**Task(s):**
☒ Head hard hat	☐ Head
☐ Eye and Face	☐ Eye and Face
☒ Hearing Hearing protection / ear plugs	☐ Hearing
☐ Arms and Legs Only	☐ Arms and Legs Only
☒ Appropriate Work Uniform Long sleeved shirt / pants.	☐ Whole Body
☐ Hand - Gloves	☐ Apron
☒ Foot - Safety Boots	☐ Hand - Gloves
☐ Fall Protection	☐ Gloves
☐ Flotation	☐ Gloves
☐ Other	☐ Foot - Safety Boots
	☐ Boots
	☐ Boots

Description of Levels of Protection

Level C	Level B
Task(s):	**Task(s):**
☐ Head	☐ Head
☐ Eye and Face	☐ Eye and Face
☐ Hearing	☐ Hearing
☐ Arms and Legs Only	☐ Arms and Legs Only
☐ Whole Body	☐ Whole Body
☐ Apron	☐ Apron
☐ Hand - Gloves	☐ Hand - Gloves
☐ Gloves	☐ Gloves
☐ Gloves	☐ Gloves
☐ Foot - Boots	☐ Foot - Boots
☐ Boots	☐ Boots
☐ Boots	☐ Boots
☐ Half Face	☐ SAR - Airline
☐ Cart./Canister	☐ SCBA
☐ Full Face	☐ Comb. Airline/SCBA
☐ Cart./Canister	☐ Cascade System
☐ PAPR	☐ Compressor
☐ Cart./Canister	☐ Fall Protection
☐ Type C	☐ Flotation
☐ Fall Protection	☐ Other
☐ Flotation	
☐ Other	

S OR PROJECT HAZARD MONITORING PR RAM

Direct Reading Air Monitoring Instruments

Instrument Selection and Initial Check Record

Reporting Format: ☒ Field Notebook ☐ Field Data Sheets ☐ Air Monitoring Log ☐ Trip Report ☐ Other

Instrument	Task No.(s)	Number Required	Number Received	Checked Upon Receipt	Comment	Initial
☐ CGI				☐		
☐ O_2				☐		
☐ CGI/O_2				☐		
☐ CGI/O_2/tox-PPM, H_2S,H_2S/CO				☐		
☐ RAD-GM				☐		
☐ NaI				☐		
☐ ZnS				☐		
☐ Other _____				☐		
☐ PID				☐		
☐ HNU 10.2				☐		
☐ HNU 11.7				☐		
☐ Photovac, TMA				☐		
☐ OVM				☐		
☐ Other _____				☐		
☒ FID	1	1		☐		
☒ FOX 128				☐	OVA will be brought to site incase waste source exists.	
☐ Heath, AID, Other _____				☐		
☐ RAM, Mini-RAM, Other _____				☐		
☐ Monotox				☐		
☐ H_2S				☐		
☐ COCL				☐		
☐ SO_2				☐		
☐ HCN				☐		
☐ Other _____				☐		
☐ Bio-Aerosol Monitor				☐		
☐ Detector Tubes				☐		
☐ Pump - MSA, Dräeger, Sensidyne				☐		
☐ Tubes/type: _____				☐		
☐ Tubes/type: _____				☐		
☐ Other _____				☐		

SITE OR PROJECT HAZARD MONITORING PROGRAM

Direct Reading Air Monitoring Instruments Calibration Record

Instrument, Mfg., Model, Equip. ID No.	Date	Time	Calib. Material	Calib. Method Mfg.'s	Other	Initial Setting and Reading	Final Setting and Reading	Calibrator Initials

SITE AIR MONITORING PROGRAM

Direct Reading Air Monitoring Instruments

Air Monitoring Instrument: OVA

Air Monitoring Frequency:

- ☐ Periodically:
- ☐ Periodically:
- ☐ Continuously:
- ☒ Other: only if conditions differ from expected conditions and possible sources of airborne contaminants are noted at the site.

Monitoring Locations

- ☐ Upwind/downwind of site activities
- ☐ Near residents, etc.
- ☐ Key site activity locations:
  - ☐ Decon area
  - ☐ Staging area
  - ☐ Excavation area
  - ☐ Field lab area
  - ☐ Storage tanks
  - ☐ Lagoons
  - ☐ Drums
- ☐ Fixed stations
- ☒ Other: breathing zone of on site personnel

Air Monitoring Instrument:

Air Monitoring Frequency:

- ☐ Periodically:
- ☐ Periodically:
- ☐ Continuously:
- ☐ Other:

Monitoring Locations

- ☐ Upwind/downwind of site activities
- ☐ Near residents, etc.
- ☐ Key site activity locations:
  - ☐ Decon area
  - ☐ Staging area
  - ☐ Excavation area
  - ☐ Field lab area
  - ☐ Storage tanks
  - ☐ Lagoons
  - ☐ Drums
- ☐ Fixed stations
- ☐ Other:

SITE AIR MONITORING PROGRAM

Action Levels

These Action Levels, if not defined by regulation, are some percent (usually 50%) of the applicable PEL/REL/TLV. That number must also be adjusted to account for instrument response factors.

	Tasks	Action Level		Action
☐ **Explosive atmosphere**		Ambient Air Concentration	Confined Space Concentration	
		<10% LEL	0 to 1% LEL	Work may continue. Consider toxicity potential.
		10 to 25% LEL	1 to 10% LEL	Work may continue. Increase monitoring frequency.
		>25% LEL	>10% LEL	Work must stop. Ventilate area before returning.
☐ **Oxygen**		Ambient Air Concentration	Confined Space Concentration	
		<19.5% O_2	<19.5% O_2	Leave Area. Re-enter only with self-contained breathing apparatus.
		19.5% to 25% 02	19.5% to 23.5% O_2	Work may continue. Investigate changes from 21%.
		>25% O_2	>23.5% O_2	Work must stop. Ventilate area before returning.
☐ **Radiation**		< 3 times background		Continue Work
		3 Times Background to < 1 mR/hour		Radiation above background levels (normally 0.01-0.02 mR/hr)g signifies possible source(s) radiation present. Continue investigation with caution. Perform thorough monitoring. Consult with a Health Physicist.
		> 1 mrem/hour		Potential radiation hazard. Evacuate site. Continue investigation only upon the advice of Health Physicist.
☒ **Organic gases and vapors**	1	< 0-1 unit above background 1 unit above background <		continue work stop work
☐ **Inorganic gases, vapors and particulates**				

WESTON® MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

TASK DESCRIPTION _____ TASK NO. _____

PREPARED BY _____ DEPT _____ DATE _____

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY

_____

DEPT _____ DATE _____

Contaminants are unknown at site. Also, it is suspected that waste sources do not exist at site*. As a precaution, an OVA will be brought to the site, in case waste sources do exist. The action level will be 1 unit above background. If OVA reading reaches this action level a "stop work" will be ordered.

* In 1993, the on-site tanks were removed; a closure report was filed with the state of Texas.

SITE AIR MONITORING PROGRAM

Ambient Air Sampling

Check situations which will require or action levels which will apply to deciding to institute or increase scope of planned air sampling.

☒ No air sampling is required on this site.

☐ An air sampling plan is incorporated in this HASP.

Meteorological Conditions

☐ Dry weather for ____ days

☐ Ambient temperature above ____ °F

☐ Wind increasing potential of more contaminant dispersion in or migration out of controlled area.

Activities which will require instituting or increasing scope of air sampling:

☐ Major spills

☐ New site activity resulting in potential presence of new chemical hazards.

☐ Site activity increases airborne contaminants possibilities.

☐ Air sampling documentation required for:
- ☐ Downgrading from stipulated level of protection
- ☐ Documenting no migration of contaminants offsite through air

Applicable Action Levels for instituting Air Sampling:

☐ Visible vapor/gas clouds or vapor levels, or

☐ Visible dust or particulate levels measured with Direct Reading Instrument, two-three times background or above action level sustained over 10-15 minute period.

The following requirements apply to air sampling:

Sampling Matrix/Air Interface - Monitor matrix/air interface and breathing zone periodically with DRI. If vapor levels > 2-3 times background, monitor continuously. Follow No. 4.

Container Opening - Monitor opening and breathing zone periodically with DRI. If vapor levels > 2-3 times background, monitor opening and breathing zone continuously. Follow No. 4.

Excavation/Drilling/Intrusive Work - Monitor at ground level and breathing zone periodically with DRI. If vapor levels > 2-3 times background, monitor opening and breathing zone continuously. Follow No. 4.

Breathing Zone - Ensure level of protection specified in HASP is being used. Consult HASP or Corporate Health and Safety relative to instituting personnel, area, or perimeter sampling.

☐ Other

SITE AIR MONITORING PROGRAM

Sample Location

	Locations	Substances Sampled For
☐ Ambient background		
☐ Personal samples, onsite		
☐ Personal samples, offsite		
☐ Fixed, onsite samples		
☐ Fixed, offsite samples		
☐ Mobile offsite samples		
☐ Mobile onsite samples		
☐ Background sample stations		

SITE AIR MONITORING PROGRAM

Air Sampling

Personal Sampling Pumps - Gilian, SKC, MSA — No.

Sampling Media - Sorbent Tubes

Task(s)	Location	Duration	Frequency	Type	Analysis Method

Sampling Media - Filter

Sampling Media - Impinger

Sampling Media - Air Bag

SITE AIR MONITORING PROGRAM

Air Sampling

Hi-Volume Pumps - Gilian, SKC, MSA

Sampling Media - Filter

Task(s)	Location	Duration	Frequency	Type	Analysis Method

Portable Gas Chromatograph Task(s): Type:

Portable GC Analytical Plan:

Passive Dosimeters

	Task(s)	Type	Location	Frequency	Duration
☐ Organic Vapor					
☐ Mercury Vapor					
☐ Paper Color Change					
☐ TLD					
☐ Film Badge					
☐ Liquid Media					

Wipe Sampling

Wipe Sampling Plan:

SITE AIR MONITORING PROGRAM

Physical Hazard and Miscellaneous Monitors and Detectors

	Task(s)	Calibration Required?/Method	Location	Frequency
☐ Sound Level Meter		☐		
☐ Noise Dosimeter(s)		☐		
☐ Octave Band Analyzer		☐		
☐ Electric Circ. Detector		☐		
☐ Thermometer		☐		
☐ Wind Speed Indicator		☐		
☐ Barometer		☐		
☐ Psychrometer		☐		
☐ Infrared Thermometer		☐		
☐ Microwave Detector		☐		
☐ pH Meter		☐		

Indicator Kits

	Task(s)	Location	Frequency
☐ pH Paper			
☐ Peroxide Paper			
☐ Chlor-N-Oil Kit			
☐ Hazard Categorizing Kit			
☐ Asbestos Test Kit			

SITE AIR MONITORING PROGRAM

Work Location Instrument Readings

Location:

% LEL	% O_2	PID (units)	FID (units)	Aerosol Monitor (mg/m^3)	GM: Shield Probe/ Thin Window		NaI (uR/hr)	ZnS (cpm)
					mR/hr	cpm		
Monitox (ppm)				Detector Tube(s)				
Sound Levels (dBA)		Illumination	pH	Other	Other	Other	Other	Other

Location:

% LEL	% O_2	PID (units)	FID (units)	Aerosol Monitor (mg/m^3)	GM: Shield Probe/ Thin Window		NaI (uR/hr)	ZnS (cpm)
					mR/hr	cpm		
Monitox (ppm)				Detector Tube(s)				
Sound Levels (dBA)		Illumination	pH	Other	Other	Other	Other	Other

CONTINGENCIES

Emergency Contacts and Phone Numbers

Agency	Contact	Phone Number
Local Medical Emergency Facility (LMF)		
WESTON Medical Emergency Contact	EMR - Dr. Elayne Theriault	1-800-229-3674
WESTON Health and Safety	Corporate Health and Safety	(505)884-5050
WESTON Health and Safety	SCR Health and Safety - ~~Darryl Drenon~~ Joe Day	~~Pager (800)507-1892 or (713)621-162~~ (713) 621-1620 911
Fire Department		911
Police Department		
Onsite Coordinator		
Site Telephone		
Nearest Telephone		

Local Medical Emergency Facility(s)

Name of Hospital: Hermann Hospital

Address: 6411 Fannin St — **Phone No.:** (713) 704-4000

Name of Contact: Emergency Room - Gwen Rhodes — **Phone No.:** SAME

Type of Service:
- ☐ Physical trauma only
- ☐ Chemical exposure only
- ☒ Physical trauma and chemical exposure
- ☒ Available 24 hours

Route to Hospital (written detail): East on Collingsworth, 59 South, Exit 288, Exit Holcombe, Go West on Holcombe, North on Fannin, Hospital will be on the right.

Travel time from site: 15 min.
Distance to hospital: 8 miles
Name/No. of 24-hr Ambulance Service: P.S (713) 741-9540 or 911

Secondary or Specialty Service Provider

Name of Hospital: Ben Taub

Address: 1504 Taub Loop — **Phone No.:** 793-2000

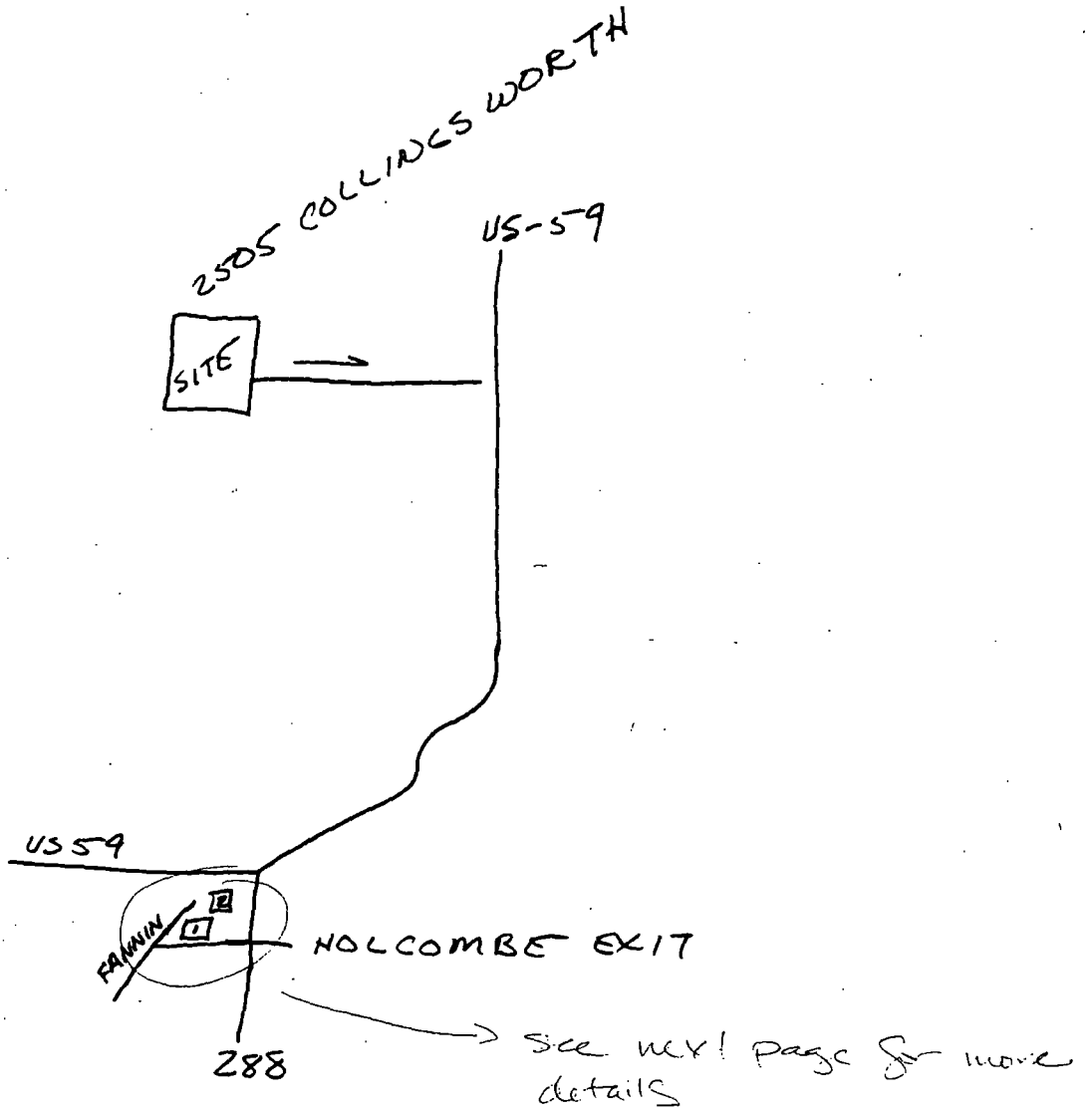
Name of Contact: Emergency Room — **Phone No.:** 793-2600

Type of Service:
- ☐ Physical trauma only
- ☐ Chemical exposure only
- ☐ Physical trauma and chemical exposure
- ☐ Available 24 hours

Route to Hospital (written detail): East on Collingsworth, 59 South, Exit 288, Exit Holcombe, West on Holcombe, North on Fannin, East on Outer Belt, turn Rt on Fannin Loop, Hospital will be on the Rt.

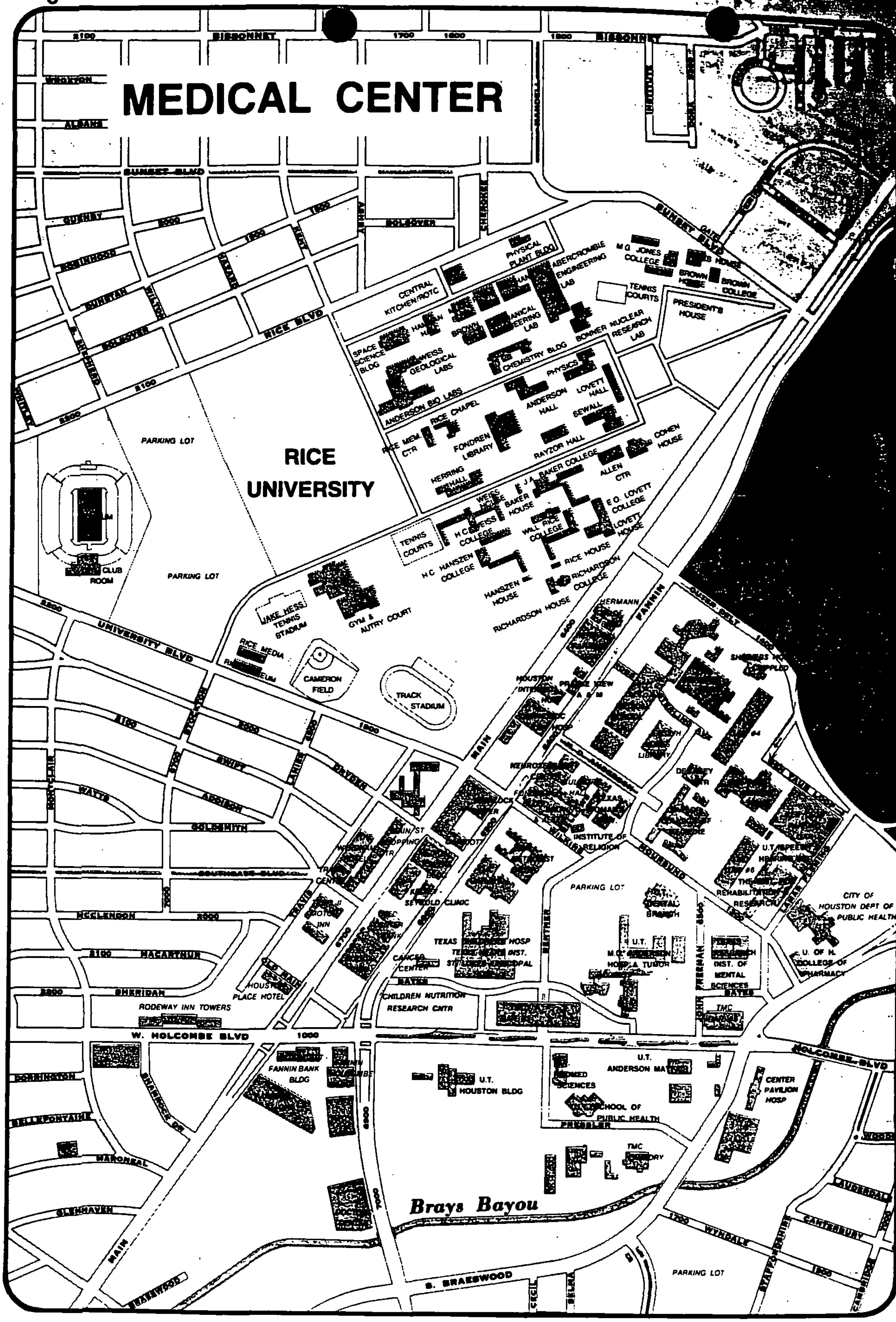
Travel time from site: 15 minutes
Distance to hospital: 8 miles
Name/No. of 24-hr Ambulance Service: P.S (713) 741-9540 or 911

Figure 1. Route to Hospital
(Draw map to hospital here if space permits or attach on separate sheet.)



① HERMANN

② BENTRUB


MEDICAL CENTER
BISSONNET
SUNSET BLVD
RICE BLVD
UNIVERSITY BLVD
RICE UNIVERSITY
PARKING LOT
CENTRAL KITCHEN/ROTC
PHYSICAL PLANT BLDG
ABERCROMBIE ENGINEERING LAB
M.G. JONES COLLEGE
BROWN HOUSE
BROWN COLLEGE
TENNIS COURTS
PRESIDENT'S HOUSE
BONNER NUCLEAR RESEARCH LAB
SPACE SCIENCE BLDG
WEISS GEOLOGICAL LABS
CHEMISTRY BLDG
PHYSICS
ANDERSON BIO LABS
RICE CHAPEL
ANDERSON HALL
LOVETT HALL
SEWALL
FONDREN LIBRARY
RICE MEM CTR
RAYZOR HALL
COHEN HOUSE
HERRING HALL
J.A. BAKER COLLEGE
ALLEN CTR
WEISS HOUSE
BAKER HOUSE
E.O. LOVETT COLLEGE
LOVETT HOUSE
H C WEISS COLLEGE
WILL RICE COLLEGE
RICE HOUSE
H C HANSZEN COLLEGE
HANSZEN HOUSE
RICHARDSON COLLEGE
RICHARDSON HOUSE
CLUB ROOM
JAKE HESS TENNIS STADIUM
GYM & AUTRY COURT
RICE MEDIA
CAMERON FIELD
TRACK STADIUM
MAIN
FANNIN
INSTITUTE OF RELIGION
PARKING LOT
U.T. DENTAL BRANCH
U.T. M.D. ANDERSON HOSP & TUMOR
TEXAS RESEARCH INST. OF MENTAL SCIENCES
CITY OF HOUSTON DEPT OF PUBLIC HEALTH
U. OF H. COLLEGE OF PHARMACY
SEYBOLD CLINIC
CANCER CENTER
CHILDREN NUTRITION RESEARCH CNTR
BATES
TMC
RODEWAY INN TOWERS
HOUSTON PLACE HOTEL
MC CLENDON
MACARTHUR
SHERIDAN
SOUTHGATE BLVD
GOLDSMITH
W. HOLCOMBE BLVD
HOLCOMBE BLVD
FANNIN BANK BLDG
U.T. HOUSTON BLDG
U.T. ANDERSON MAYO
SCHOOL OF PUBLIC HEALTH
PRESSLER
CENTER PAVILION HOSP
TMC
Brays Bayou
WYNDALE
S. BRAESWOOD
PARKING LOT
DORRINGTON
BELLEFONTAINE
GLENHAVEN
CAMBRIDGE
CANTERBURY
LAUDERDALE

CONTINGENCIES

Response Plans

Medical - General	First Aid Kit:	Type	Location	Special First Ai Procedures:
Provide First Aid as trained, assess and determine need for further medical assistance, Transport or arrange for transport after appropriate decontamination	Condensed	20 man BBP	WESTON Vehicle	Cyanides on sit ☐ Yes ☒ No. If yes, contact LMF. Do they have antidote kit? ☐ Yes ☐ No
	Eyewash required ☐ Yes ☒ No	Type	Location	HF on site ☐ Yes ☐ No. If yes, need neutralizing ointment for Fir Aid kit. Contac LMF.
	Shower required ☐ Yes ☒ No	Type	Location	

Plan for Response to Spill/Release		Plan for Response to Fire/Explosion		Fire Extinguishers
In the event of a spill or release, ensure safety, assess situation and perform containment and control measures as appropriate:	a. Clean up per MSDS if small or; Sound Alarm, call for assistance, Notify Emergency Coordinator b. Evacuate to pre-determined safe place c. Account for personnel d. Determine if Team can respond safely e. Mobilize per Site Spill Response Plan	In the event of a fire or explosion, ensure personal safety, assess situation and perform containment and control measures as appropriate:	a. Sound Alarm and call assistance, Notify Emergency Coordinator b. Evacuate to predeter-mined safe place c. Account for personnel d. Use fire extinguisher, only if safe and trained e. Standby to inform Emergency responders of materials and conditions	Type/Location ABC in WESTON Vehicle
Description of Spill Response Gear N/A	Location	Description (Other Fire Response Equipment)		Location

Plan to Response to Security Problems

DECONTAMINATION PLAN

Personnel Decontamination

Consistent with the levels of protection required, step-by-step procedures for personnel decontamination for each Level of Protection are attached.

Levels of Protection Required for Decontamination Personnel

The levels of protection required for personnel assisting with decontamination will be:

☐ Level B ☐ Level C ☒ Level D

Modifications include:

Disposition of Decontamination Wastes

Provide a description of waste disposition including identification of storage area, hauler, and final disposal site, if applicable:

Solid Waste generated from decontamination process will be collected in garbage bags, double bagged for disposal. Shoes may be wiped w/ kimwipes.

Equipment Decontamination

A procedure for decontamination steps required for non-sampling equipment and heavy machinery follows:

Equipment will not be exposed to sources of contamination.

Sampling Equipment Decontamination

Sampling equipment will be decontaminated in accordance with the following procedure:

N/A

LEVEL D/MODIFIED LEVEL D DECONTAMINATION PLAN

Check indicated functions or add steps as necessary:

Function	Description of Process, Solution, and Container
☐ Segregated equipment drop	
☐ Boot cover and glove wash	
☐ Boot cover and glove rinse	
☐ Tape removal - outer glove and boot	
☐ Boot cover removal	
☐ Outer glove removal	
HOTLINE	
☐ Suit/safety boot wash	
☐ Suit/boot/glove rinse	
☐ Safety boot removal	
☐ Suit removal	
☐ Inner glove wash	
☐ Inner glove rinse	
☐ Inner glove removal	
☐ Inner clothing removal	
CRC/SAFE ZONE BOUNDARY	
☒ Field wash	Wash hands & face
☐ Redress	

Disposal Plan, End of Day:

Waste will be double bagged. No contamination expected. One day event

Disposal Plan, End of Week:

N/A

Disposal Plan, End of Project:

N/A

LEVEL C DECONTAMINATION PLAN

Check indicated functions or add steps as necessary:

Function	Description of Process, Solution, and Container
☐ Segregated equipment drop	
☐ Boot cover and glove wash	
☐ Boot cover and glove rinse	
☐ Tape removal - outer glove and boot	
☐ Boot cover removal	
☐ Outer glove removal	
HOTLINE	
☐ Suit/safety boot wash	
☐ Suit/boot/glove rinse	
☐ Safety boot removal	
☐ Suit removal	
☐ Inner glove wash	
☐ Inner glove rinse	
☐ Face piece removal	
☐ Inner glove removal	
☐ Inner clothing removal	
CRC/SAFE ZONE BOUNDARY	
☐ Field wash	
☐ Redress	

Disposal Plan, End of Day:

Disposal Plan, End of Week:

Disposal Plan, End of Project:

LEVEL B DECONTAMINATION PLAN

Check indicated functions or add steps as necessary:

Function	Description of Process, Solution, and Container
☐ Segregated equipment drop	
☐ Boot cover and glove wash	
☐ Boot cover and glove rinse	
☐ Tape removal - outer glove and boot	
☐ Boot cover removal	
☐ Outer glove removal	
HOTLINE	
☐ Suit/safety boot wash	
☐ Suit/SCBA/boot/glove rinse	
☐ Safety boot removal	
☐ Remove SCBA backpack w/o disconnecting	
☐ Splash suit removal	
☐ Inner glove wash	
☐ Inner glove rinse	
☐ SCBA disconnect and face piece removal	
☐ Inner glove removal	
☐ Inner clothing removal	
CRC/SAFE ZONE BOUNDARY	
☐ Field wash	
☐ Redress	

Disposal Plan, End of Day:

Disposal Plan, End of Week:

Disposal Plan, End of Project:

SITE PERSONNEL AND CERTIFICATION STATUS

WESTON

Name: Curtis Vaughn **Title:** Asst. Project Scientist **Task(s):** 1 **Certification Level or Description:** D-S, B-T ☒ Medical Current ☒ Training Current ☒ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)	**Name:** Joy Ishigo **Title:** Engineer **Task(s):** 1 **Certification Level or Description:** B-T ☒ Medical Current ☒ Training Current ☒ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)
Name: Noelle Stenger **Title:** Assoc. Project Scientist **Task(s):** 1 **Certification Level or Description:** B-T ☒ Medical Current ☒ Training Current ☒ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)	**Name:** **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)
Name: **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)	**Name:** **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)
Name: **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)	**Name:** **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)
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TRAINING CURRENT - Training: All personnel, including visitors, entering the exclusion or contamination reduction zones must have certifications of completion o training in accordance with OSHA 29 CFR 1910, 29 CFR 1926 or 29 CFR 1910.120.

FIT TEST CURRENT - Respirator Fit Testing: All persons, including visitors, entering any area requiring the use or potential use of any negative pressure respirator must have had as a minimum, a qualitative fit test, administered in accordance with OSHA 29 CFR 1910.134 or ANSI within the last 12 months. If site condition require the use of a full face negative pressure, air purifying respirator for protection from Asbestos or Lead, employees must have had a quantitative fit test, administered according to OSHA 29 CFR 1910.1001 or 1025 within the last 6 months.

MEDICAL CURRENT - Medical Monitoring Requirements: All personnel, including visitors, entering the exclusion or contamination reduction zones must be certifie as medically fit to work, and to wear a respirator, if appropriate, in accordance with 29 CFR 1910, 29 CFR 1926/1910 or 29 CFR 1910.120.

The Site Health and Safety Coordinator is responsible for verifying all certifications and fit tests.

SITE PERSONNEL AND CERTIFICATION STATUS

Subcontractor's Health and Safety Program Evaluation

Name of Subcontractor:
Address:

Activities to Be Conducted by Subcontractor:

Evaluation Criteria

Medical program meets OSHA/WESTON c. ☐ Acceptable ☐ Unacceptable Comments:	Personal protective equipment available ☐ Acceptable ☐ Unacceptable Comments:	.nsite monitoring equipment available, calibrated and operated properly ☐ Acceptable ☐ Unacceptable Comments:
Safe working procedures clearly specified ☐ Acceptable ☐ Unacceptable Comments:	Training meets OSHA/WESTON criteria ☐ Acceptable ☐ Unacceptable Comments:	Emergency procedures ☐ Acceptable ☐ Unacceptable Comments:
Decontamination procedures ☐ Acceptable ☐ Unacceptable Comments:	General health and safety program evaluation ☐ Acceptable ☐ Unacceptable Comments:	Additional comments: ☐ Subcontractor has agreed to and will conform with the WESTON HASP for this Project. ☐ Subcontractor will work under his own HASP which has been accepted by Corporate Health and Safety.

Evaluation Conducted by: **Date:**

Subcontractor

Name: **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)	**Name:** **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)
Name: **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)	**Name:** **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)
Name: **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)	**Name:** **Title:** **Task(s):** **Certification Level or Description:** ☐ Medical Current ☐ Training Current ☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)

HEALTH AND SAFETY PLAN APPROVAL/SIGNOFF FORM

Site Name: Torque Petroleum WO# 04603-023-027 -1800-04

Address: 295 Collingsworth Houston, TX 77026

I understand, agree to and will conform with the information set forth in this Health and Safety Plan (and attachments) an discussed in the Personnel Health and Safety briefing(s).

Name	Signature	Date

TRAINING AND BRIEFING TOPICS

The following items will be covered at the site specific training meeting, daily or periodically.

☑ Site characterization and analysis, Sec. 3.0, 29 CFR 1910.120 i	☐ Level A
☑ Physical hazards, Table 3.2	☐ Level B
☐ Chemical hazards, Table 3.1	☐ Level C
☑ Animal bites, stings, and poisonous plants	☑ Level D
☐ Etiologic (infectious) agents	☐ Monitoring, Sec. 7.0; 29 CFR 1910.120 h
☐ Site control, Sec. 8.0; 29 CFR 1910.120 d	☐ Decontamination, Sec. 9.0; 29 CFR 1910.120 k
☐ Engineering controls and work practices, Sec. 8.5; 25 CFR 1910.120 g	☐ Emergency response, Sec. 10.0; 29 CFR 1910.120 l
☐ Heavy machinery	☐ Elements of an emergency response, Sec. 100; 29 CFR 1910.120 l
☐ Forklift	☐ Procedures for handling site emergency incidents, Sec. 10.0; 29 CFR 1910.120 l
☐ Backhoe	☐ Offsite emergency response, 29 CFR 1910.120 l
☐ Equipment	☐ Handling drums and containers, 29 CFR 1910.120 j
☐ Tools	☐ Opening drums and containers
☐ Ladder 29 CFR 1910.27 d	☐ Electrical material handling equipment
☐ Overhead and underground utilities	☐ Radioactive waste
☐ Scaffolds	☐ Shock sensitive waste
☐ Structural integrity	☐ Laboratory waste packs
☐ Unguarded openings - wall, floor, ceilings	☐ Sampling drums and containers
☐ Pressurized air cylinders	☐ Shipping and transport, 49 CFR 172.101
☐ Personnel protective equipment, Sec. 5.0; 25 CFR 1910.120 g; 29 CFR 1910.134	☐ Tank and vault procedures
☐ Respiratory protection, Sec. 5.8; 29 CFR 1910.120 g; Z88.2-1980	☐ Illumination, 29 CFR 1910.120 m
	☐ Sanitation, 29 CFR 1910.120 n

ATTACHMENT "A"

CHEMICAL CONTAMINANTS

DATA SHEETS

(Use HASP Form 33HASP.894
or attach appropriate data sheets.)

ATTACHMENT "B"

MATERIAL SAFETY DATA SHEETS (MSDS)

ATTACHMENT "C"

SAFETY PROCEDURES/FIELD OPS (FLDOP'S)

ATTACHMENT "D"

SITE SPECIFIC HAZARD COMMUNICATION PROGRAM

Location Specific Hazard Com[redacted]ications Program/Checklist

In order to ensure an understanding of and compliance with the Hazard Communication Standard, WESTON will utilize this checklist/document (or similiar document) in conjunction with the WESTON Written Hazard Communications Program as a means of meeting site or location specific requirements.

While responsibility for activities within this document reference the WESTON Safety Officer, it is the responsibiltiy of all personnel to effect compliance. Responsiblities under various conditions can be found within the WESTON Written Hazard Communication Program.

To ensure that information about the dangers of all hazardous chemicals used by WESTON are known by all affected employees, the following hazardous information program has been established. All affected personnel will participate in the hazard communication program. This written program as well as WESTON's Corporate Hazard Communication Program will be available for review by any employee, employee representative, representative of OSHA, NIOSH or any affected employer/employee on a multi-employer site.

___ Site or other location name/address:

_____

___ Site/Project/Location Manager:_____

___ Site/Location Safety Officer:_____

___ List of chemicals complied, format: HASP:_____ Other:_____

___ Location of MSDS Files:

_____

___ Training Conducted by (name and date):_____

___ Indicate format of training documentation: Field Log:_____ Other:_____

___ Client briefing conducted regarding hazard communication:

___ If multi-employer site, indicate name of affected companies:

_____

_____

___ Other employer(s) notified of chemicals, labelling and MSDS information:

___ WESTON notified of other employer's or clients hazard communication program as necessary.

List of Hazardous Chemicals

A list of known hazardous chemicals used by WESTON personnel must be prepared and attached to this document or in a centrally identified location with the MSDS's. Further information on each chemical may be obtained by reviewing the appropriate MSDS's. The list will be arranged to enable cross reference with the MSDS file and the label on the container. The SO or location manager is responsible for ensuring the chemical listing remains up-to-date.

Container Labeling

The WESTON Safety Officer (SO) will verify that all containers received from the chemical manufacturer, importer or distributor for use on site will be clearly labeled.

The SO is responsible for assuring labels are placed where required and for comparing MSDS's and other information with label information to ensure correctness.

Material Safety Data Sheets (MSDS)

The SO is responsible for establishing and monitoring WESTON's MSDS program for the location. The SO will make sure procedures are developed to obtain the necessary MSDS's and will review incoming MSDS's for new or significant health and safety information. He/she will see that any new information is passed on to the affected employees. If an MSDS is not received at the time of initial shipment, the SO will call the manufacturer and have a MSDS delivered for that product in accordance with the requirements of WESTON's Written Hazard Communication Program.

A log for, and copies of, MSDS's for all hazardous chemicals in use will be kept in the MSDS folder at a location known to all site workers. MSDS's will be readily available to all employees during each work shift. If an MSDS is not available, immediately contact the WESTON SO or designated alternate. When revised MSDS's are received the SO will immediately replace the old MSDS's.

Employee Training and Information

The SO is responsible for the WESTON site-specific personnel training program. The SO will ensure that all program elements specified below are supplied to all affected employees.

At the time of initial assignment for employees to the work site or whenever a new hazard is introduced into the work area employees will attend

a health and safety meeting or briefing that includes the information indicated below.

- Hazardous chemicals present at the worksite
- Physical and health risks of the hazardous chemicals
- The signs and symptoms of overexposure
- Procedures to follow if employees are overexposed to hazardous chemicals
- Location of the MSDS file and written hazard communication program
- How to determine the presence or release of hazardous chemicals in the employees work area
- How to read labels and review MSDS's to obtain hazard information
- Steps WESTON has taken to reduce or prevent exposure to hazardous chemicals
- How to reduce or prevent exposure to hazardous chemicals through use of controls procedures, work practices and personal protective equipment
- Hazardous, non-routine tasks to be performed (if any)
- Chemicals within unlabled piping (if any)

Hazardous Non-Routine Tasks

When employees are required to perform hazardous non-routine tasks the affected employee(s) will be given information by the SO about the hazardous chemicals he or she may utilize during such activity. This information will include specific chemical hazards, protective and safety measures the employee can use and steps WESTON is using to reduce the hazards. These steps include, but are not limited to, ventilation, respirators, presence of another employee and emergency procedures.

Chemicals in Unlabeled Pipes

Work activities may be performed by employees in areas where chemicals are transferred through unlabeled pipes. Prior to starting work in these areas, the employee shall contact the SO at which time information as to; the chemical(s) in the pipes, potential hazards of the chemicals or the process involved, and safety precautions which should be taken will be determined and presented.

Multi-Employer Worksites

It is the responsibility of the SO to provide other employers with information about hazardous chemicals imported by WESTON to which their employees may be exposed, along with suggested safety precautions. It is also the responsibility of SO and the site manager to obtain information about hazardous chemicals used by other employers to which WESTON employees may be exposed. WESTON's chemical listing will be made available to other employers as requested. MSDS's will be available for viewing as necessary.

The location, format and/or procedures for accessing MSDS information must be relayed to affected employees.